Lower Rio Grande, Rio Grande Estuary and Lower Laguna Madre Basin and Bay Expert Science Team,
Monday 23 January 2012 meeting
At University of Texas at Brownsville

Minutes

Members Present: Hudson DeYoe, Chair; Dave Buzan, Vice Chair (via teleconference); Jude Benavides; Bob Edwards; Warren Pulich; and Carlos Marin (via teleconference)

Call to order
Chairman Hudson DeYoe called the meeting to order.

Project Administration
Cory Horan, TCEQ, provided a brief update on a membership change of the Upper Rio Grande BBEST. No other updates were provided.

Budget Update
Chairman DeYoe briefly discussed current expenditures and budget status. Members are reminded to submit invoices in a timely manner.

Contract Updates
Caimee Schoenbaechler, TWDB, informed the group that the report preparation contract with UT Pan American has been executed.

Member Jude Benavides noted that the water balance contract with the Texas Water Resources Institute (TWRI) was in place and he had been communicating with them regularly. He expects a working model with simulated data to be available within a few weeks, to then be populated with actual data to include runoff, flows, and precipitation data. The model is being developed to allow flexibility in analyzing how the water balance will function under different loads.

Member Warren Pulich provided an update on the GIS contract looking at seagrass distribution from aerial photography. The intent is to establish a timeline in changes of seagrass communities in the Lower Laguna Madre since 2000. This work will be completed by the end of the month and maps to be used in the final BBEST report will be used.

Updates on report components
The BBEST members discussed the draft report outline and how the various components should be compiled. The members will add short summaries to entire sections that tie into other components, to better streamline the final report.

A. Qualitative descriptions
   1. Resacas (Buzan and Benavides)
      No update

2. Bahia Grande and San Martin Lake (DeYoe and Buzan)
Chair DeYoe noted that he has reviewed existing literature, which included the USF&W Bahia Grande report as well as info from the Environmental Impact Statement performed for the Brownsville ship channel. However, overall there was not much data available. Members agreed to include a habitat description to this section.

3. Above tidal Rio Grande (fish- Edwards, riparian- Pulich, WQ- DeYoe).
Member Bob Edwards noted no new activity regarding the biological component; however the write up on riparian vegetation has been drafted and is ready for review. Member Warren Pulich stated that to maintain ecological soundness you would need a flow sufficient to maintain the mouth of the Rio Grande. If this occurs the proper salinity gradient will be maintained and indicator species used in this analysis will take care of themselves. This will be a qualitative description. Chair DeYoe noted that all the water quality data has been compiled but not evaluated. This will be included in the write up of this section.

B. Quantitative assessments

1. LLM (Pulich, DeYoe, Edwards, Buzan)
Chair DeYoe provided an overview of the analysis for this portion of the system. The group agreed to limit their quantitative analysis to seagrasses as they represent a fixed/stable habitat with known tolerances of salinity levels. Analysis of motile species will be qualitative only. Member Warren Pulich will try to determine if there is a nitrogen gradient that corresponds with salinity plumes to determine if nutrients are a limiting factor in seagrass distribution. The members discussed inflows to the Lower Laguna Madre, flood volumes and events, water quality parameters and the influence on the Laguna's capacity to absorb large inflows. The final recommendation report will document changes in seagrass distribution and abundance with a link to inflow patterns.

2. Tidal Rio Grande (Edwards, Pulich, DeYoe, Benavides, Morin)
The members agreed to analyze the salinity regime and evaluate how that has shifted over time using the brief period of record available. Riparian vegetation serves as a direct indicator of the salinity gradient.

3. Rio TxBLEND model (TWDB staff)
   Caimee Schoenbaechler and Junji Matsumoto of TWDB presented a summary of recent efforts to develop and calibrate a Lower Rio Grande TxBLEND hydrodynamic and salinity transport model. They discussed model calibration, recent model outputs/findings, and how to adjust the model for future runs. Members agreed to perform a regression analysis using existing data to compare results against the TxBLEND results.

4. Arroyo Colorado (Benavides, Buzan, Morin)
   Vice chair Dave Buzan is developing the qualitative description for the Arroyo Colorado. The group agrees current conditions of the Arroyo Colorado do not constitute a sound ecological environment.

Report construction

It was noted that the report contractor is ready to begin work compiling the recommendations report. The members discussed deadlines for submittal of report sections and submittal of the final report. Members will review drafted sections and provide comments for further refinement by the end of February.

Adaptive management: Member Buzan is drafting this section which will include a table that identifies work that should be focused on over the next 10 years. Members will need to review and approve this section as a group.

Adjourn